Commonwealth of Pennsylvania

DEPARTMENT OF AGRICULTURE
BUREAU OF CHEMISTRY

BULLETIN No. 262

Linseed Oil Report

1913--1914

JAMES W. KELLOGG
Chief Chemist

Published by Direction of the Secretary of Agriculture

HARRISBURG, PA.:
WM. STANLEY RAY, STATE PRINTER
1915

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LETTER OF TRANSMITTAL

DEPARTMENT OF AGRICULTURE.
BUREAU OF CHEMISTRY.

Harrisburg, Pa., Feb. 25, 1915.

Hon. N. B. Critchfield, Secretary of Agriculture, Harrisburg, Pa.

Dear Sir:—I have the honor to submit herewith for your approval a report of the work accomplished by this Bureau during the years 1913 and 1914 in analyzing samples of Linseed Oil. This work has been done in accordance with the provisions of the Act of April 23rd, 1901, No. 62, and the recent Linseed Oil Law, Act of April 29th, 1913, No. 82, which became effective June 1st, 1913.

It is recommended that this report be published in bulletin form for distribution.

Very respectfully,
JAMES W. KELLOGG,
Chief Chemist.

BULLETIN No. 262

LINSEED OIL REPORT

1913-1914

JAMES W. KELLOGG JOHN S. SPICER VICTOR B. HAUSKNECHT

INTRODUCTION

In carrying out the provisions of the laws regulating the sale of Linseed Oil, under the direction of the Secretary of Agriculture, the chemical and other necessary work has been done by the Bureau of Chemistry. This Report, therefore, shows the number of samples of oil secured and analyzed during the period of two years, 1913 and 1914. Because of insufficient funds appropriated for this work in 1913, only 71 samples were examined during this year.

At the 1913 session of the Legislature a new Linseed Oil Law was passed which became operative June 1, 1913 replacing the Act of April 23, 1901 under which the Department had previously been working. The few samples of oil examined during the first part of 1913 were, therefore, secured under the provisions of the old law and the remaining samples were analyzed in accordance with the provisions of the new law. During the two year period covered by this report, Special Agents of the Department collected from dealers in the State 321 samples of oil which were being sold as pure raw and boiled linseed oil. These samples were sent to the Bureau of Chemistry in sealed bottles for analysis, together with reports in each case. After the completion of the chemical work, reports were made to the Secretary of Agriculture and notices sent to manufacturers and dealers advising as to whether or not the samples examined met the standards.

The chemical analyses of the samples secured in 1913 were made by Mr. John S. Spicer, formerly First Assistant Chemist of the Bureau, and the samples secured in 1914 were analyzed by Mr. Victor B. Hausknecht, the present First Assistant Chemist.

STANDARDS OF PURITY.

In analyzing linseed oil, determinations are made for characteristic properties known as "constants" which are established as standards for raw and boiled linseed oil by the law, as follows:

RAW LINSEED OIL:

Specific Gravity at 15.5° C. .9315 to .9360.
Saponification Value (Koettstorfer number) 187 to 195.
Iodine Value (Hanus number) 170 to 190.
Unsaponifiable Matter not to exceed 1.5%.
Acid Value not to exceed 6.

BOILED LINSEED OIL:

Specific Gravity at 15.5° C. .9325 to .9450.
Saponification Value (Koettstorfer number) 185 to 195.
Iodine Value (Hanus number) 160 to 190.
Unsaponifiable Matter not to exceed 2 per cent.
Not to contain free Rosin or Rosin Oil, nor Rosin as
Resinates in excess of 1 per centum.
Heated to a temperature of at least 107° C.

A full explanation of the meaning and method of estimating these constants can be found in well known text books on the subject of drying and non-drying oils. A brief explanation of the terms used in oil analysis, will help those unfamiliar with this work to a better understanding of the characteristic properties of linseed oil. These properties, also possessed by other drying oils differ enough from such oils to enable the chemist to readily distinguish the difference between linseed oil and oil from other sources and to determine when a foreign oil has been mixed with linseed oil.

Specific Gravity means the weight of an oil compared with that of water and is determined by estimating the weight or specific gravity of a certain amount of oil under given conditions for comparison

Saponification Value indicates the degree to which an oil can unite with alkali to form a soap. The number or value estimated shows the number of milligrams of caustic potash required to convert one gram of oil into soap.

Iodine Value indicates the drying properties of an oil and the number estimated is the percentage amount of iodine absorbed by an oil. Linseed oil when drying takes up oxygen, and as iodine is absorbed in a similar way and can be used to better advantage in making laboratory tests, it is used in oil analysis to obtain the comparative drying properties. Mineral and other non-drying oils will not take up oxygen or iodine to any extent, therefore, those oils which do show a marked reaction to iodine and which absorb oxygen when drying are classed as drying oils. Therefore those oils which have the highest iodine value possess the best drying properties.

Unsaponifiable Matter indicates the percentage amount of material which will not unite with alkali to form soap. Mineral oils cannot be saponified and, therefore, when this oil is added to linseed oil, the percentage of this "constant" is increased.

Acid Value shows the amount of free or uncombined acids present in linseed oil. This value is determined by neutralization with an alkali under prescribed conditions and in pure raw linseed oil it should not exceed 6. When pure oil contains rosin, becomes rancid or when it is pressed from unscreened flaxseed, the acid value will be increased above the normal. Linseed oils with an excessive acid value are unfit for painting purposes.

ANALYSIS OF SPECIAL SAMPLES.

The Linseed Oil Law, in addition to establishing standards for pure raw and boiled oils provides for the analysis of special samples sent to the Department by residents of Pennsylvania for a fee of $1.00 per sample. This provision is for the purpose of affording dealers and consumers a means of determining whether or not the linseed oil sold or purchased is pure and free from adulterants. For a nominal charge, therefore, the Department can assist parties handling oil in complying with the requirements of the law and protect consumers from being sold an inferior product. Whenever there is doubt in regard to the purity of oil the Department should be called upon for this information. When samples are submitted for analysis, the following directions should be noted:

Amount of Oil—About one-half pint of the oil to be examined should be carefully drawn from the barrel or other container and placed in a clean bottle. When funnels or measures are used care should be taken that they are clean and free from foreign oils, as otherwise the tests made on an oil contaminated in this way, will be misleading.

Analysis Fee—A charge of $1.00 for each sample analyzed is made as provided by the law and should be sent in the form of a certified check. money order or cash, with a letter requesting the analysis to be made. and advising of the sending of the sample.

Address—The bottle containing the sample of oil should be securely packed and sent by parcel post addressed:—Bureau of Chemistry, Department of Agriculture, Box "R", Harrisburg, Pa.

The Department will, in so far as time and amount of work permits, make preliminary tests on samples of linseed oil, free of charge, which are suspected of being adulterated with mineral oil. This, however, is only a qualitative test but is sufficient to determine the presence of this adulterant. As soon as possible after the receipt of sample, a report of the results obtained, including a receipt for the fee will be mailed to senders. Since the taking effect of the new law, making it possible for the analysis of special samples, only nine such samples of oil have been received. One of these was found to be adulterated with mineral oil.

LINSEED OIL LAW.

All persons selling linseed oil, from manufacturer to consumer, should become familiar with the requirements of the law regulating the sale of this commodity and should know of the protection thus afforded by being able to get samples examined where there is any doubt about the purity of oil being purchased or being sold. The full text, therefore, of the Linseed Oil Law is included in this report as follows:

No. 82.

AN ACT

Regulating the storage and sale of linseed oil, and compounds and imitations thereof; fixing standards for raw and boiled linseed oil; providing penalties for violations thereof; providing for the enforcement of this act, and expenses thereof; providing for examination of samples of linseed oil; and repealing an act approved the twenty-third day of April, one thousand nine hundred and one, entitled "An act to prevent the adulteration of, and deception in the sale of, linseed or flaxseed oil," and the act approved the twenty-second day of April, one thousand nine hundred and five, entitled "An act supplemental to an act, entitled 'An act to prevent the adulteration of, and deception in the sale of linseed or flaxseed oil,' approved the twenty-third day of April, Anno Domini one thousand nine hundred and one."

"Linseed oil" defined.

Section 1. Be it enacted, &c., That the words "linseed oil," as used in this act, shall mean an oil, wholly the product obtained from pure flaxseed, and conforming to the following requirements:

Requirements.

Specific gravity.

First. Its specific gravity, at a temperature of fifteen and five-tenths degrees centigrade, shall be not less than nine thousand three hundred and fifteen ten-thousandths (.9315), nor greater than nine thousand three hundred and sixty ten-thousandths (.9360).

Acid value.

Second. Its acid value shall not exceed six (6).

Saponification value.

Third. Its saponification value (Koettstorfer number) shall be not less than one hundred and eighty-seven (187), nor greater than one hundred and ninety-five (195).

Unsaponifiable matter.

Fourth. It shall not contain more than one and one-half per centum of unsaponifiable matter.

Fifth. Its iodine value (Hanus number) shall be not less than one hundred and seventy (170), nor greater than one hundred and ninety (190). Iodine value.

The words "boiled linseed oil," as used in this act, shall mean linseed oil, as above defined, which has been heated to a temperature of at least one hundred and seven degrees centigrade, and conforming to the following requirements: "Boiled linseed oil" defined.

First. It shall not contain free rosin or rosin oil, nor shall it contain rosin as resinates in excess of one per centum. Rosin, etc.

Second. It shall not contain more than two per centum of unsaponifiable matter. Unsaponificable matter.

Third. Its saponification value (Koettstorfer number) shall be not less than one hundred and eighty-five (185), nor greater than one hundred and ninety-five (195). Saponification value.

Fourth. Its iodine value (Hanus number) shall be not less than one hundred and sixty (160), nor greater than one hundred and ninety (190). Iodine value.

Fifth. Its specific gravity, at a temperature of fifteen and five-tenths degrees centigrade, shall be not less than nine thousand three hundred and twenty-five ten thousandths (.9325), nor greater than nine thousand four hundred and fifty ten thousandths (.9450). Specific gravity.

Section 2. The word "container," as used in this act, shall mean any tank, barrel, keg, can, bottle, jug, or other vessel in which raw or boiled linseed oil, or any compound or imitation thereof, shall be stored, sold, or offered for sale. "Container" defined.

The word "person," as used in this act, shall mean any individual, partnership, or corporation, acting directly, or acting indirectly through the agent, servant, or employe of such person. "Person" defined.

The word "marked," as used in this act, shall mean "written," "printed," "stamped," "painted," or "blown," or any other means whereby words may be indicated, in or on a container, or on any label attached thereto. "Marked" defined.

Section 3. It shall be unlawful for any person to store or sell or offer for sale any of the following commodities, in a container having therein or thereon marked the words "linseed oil," or flaxseed oil," or having therein or thereon marked any decription of the contents containing the words "linseed oil" or "flaxseed oil," namely: Unlawful storage or sale.

One. Any raw or boiled linseed oil which shall not comply with the respective requirements of the first section of this act.

Two. Any compound of raw or boiled linseed oil which shall not comply with the respective requirements of the first section of this act.

Three. Any imitation of linseed oil.

Unlawful sale of compound or imitation.

Notice to purchaser.

Section 4. It shall be unlawful for any person to sell or offer for sale as linseed oil any compound or imitation of linseed oil, without notifying the purchaser thereof, in writing, at the time of such sale, that the oil so sold is a compound or imitation of linseed oil.

Violations.

Penalty.

Section 5. Any person who shall violate any of the provisions of this act shall, upon conviction thereof before any alderman, magistrate, or justice of the peace of the county wherein the offense shall have been committed, be sentenced to pay a fine of not less than fifty nor more than one hundred dollars, or, in default thereof, may be committed to the jail of the proper county for a period of not less than thirty days, nor more than sixty days.

Enforcement of act.

Disposition of fines.

Section 6. It shall be the duty of the Secretary of Agriculture to cause the provisions of this act to be enforced. All fines recovered in pursuance of this act shall be paid to, or to the order of, the Secretary of Agriculture, and by him paid into the State Treasury.

Refusal to sell oil to Secretary or his agents.

Penalty.

Section 7. Any person refusing to sell any oil to the Secretary of Agriculture or his agent, or agents, or in any way interfering with the enforcement of the act, shall be guilty of a misdemeanor, and upon conviction shall be sentenced to pay a fine of not less than fifty dollars, nor more than one hundred dollars, together with the cost of prosecution.

Examination of samples.

Fee.

Section 8. Any person in the Commonwealth of Pennsylvania dealing in raw or boiled linseed oil may send samples thereof to the Department of Agriculture for examination. The results of such examination shall be reported to such person, within fifteen days from the receipt by the department of such sample. The fee for said examination shall be one dollar, which shall be paid before such examination shall be made. All moneys received from such examination shall be paid into the State Treasury.

Publication of information.

Section 9. The Secretary of Agriculture may, from time to time, cause to be published information obtained from the examinations of all samples of oils received or secured in the enforcement of this act.

When act will take effect.

Section 10. This act shall go into effect on the first day of June, Anno Domini one thousand nine hundred and thirteen.

Expenses of enforcement.

Section 11. All necessary expenses incurred in the enforcement of this act shall, after approval in writing by the Secretary of Agriculture, be paid by the State Treasurer upon warrant of the Auditor General, in the manner now provided by law.

Repeals.

Section 12. The act approved the twenty-third day of April, Anno Domini one thousand nine hundred and one, entitled "An act to prevent the adulteration of, and deception in the sale of, linseed or flaxseed oil," and the act approved the twenty-second day of April, Anno Domini one thousand nine hundred and five, entitled "An act supplemental to an act, entitled 'An act to prevent the adulteration of and deception in the sale of linseed or flaxseed oil,' approved the twenty-third day of April, Anno Domini one thousand nine hundred and one, providing for the payment of expenses for the enforcement of the provisions of said act," and all other acts, or parts of acts, inconsistent with the provisions of this act, are hereby repealed.

APPROVED—The 29th day of April, A. D. 1913.

JOHN K. TENER.

The foregoing is a true and correct copy of the Act of the General Assembly No. 82.

ROBERT McAFEE,
Secretary of the Commonwealth.

RESULTS OF INSPECTION.

Of the 321 official samples of linseed oil purchased by Special Agents representing the character of the raw and boiled linseed oil being sold in the State, 10 were found to be adulterated with mineral oil in varying proportions from 0.84% to 42%. This foreign oil was the only adulterant found being used. Prosecutions were immediately ordered in these cases.

In 11 samples the acid value was found to be excessive but except in one case this value was not great enough to seriously effect the quality of the oil. In the case of the exception noted, the manufacturers, upon request, exchanged this shipment for a better grade of oil. Three samples were found to have been accidently contaminated with turpentine, one with mineral oil and one with formaline. The presence of these foreign oils which were shown to have become accidently introduced was, no doubt, the result of carelessness on the part of dealers in transferring oil from one container to another in which small amounts of foreign oils had been left or by using unclean funnels in making these transfers.

From the number of samples found adulterated, it is evident that all the linseed oil being sold in the State is not pure. It is hoped, however, that as the work of enforcing the law progresses, the amount of impure oils on the market will be decreased and eventually this form of attempted fraud will be discontinued. It should be evident to purchasers that only reliable firms should be dealt with if pure linseed oil is desired. The following table shows the number of samples of oil examined, together with the names of the dealers from whom they were secured and the names of the manufacturers or importers where known. Those samples which were found to be adulterated were so marked. The names of the firms putting out these impure linseed oils should be carefully noted.

RESULTS OF INSPECTION.

Chemist's number.	Name and Address of Manufacturer or Importer.	Name and Address of Dealer.	Agent's number.	Kind of oil.	Remarks.
L1057	The American Linseed Oil Co., Cleveland, Ohio,	E. C. Autrieth, Darlington,	86	Raw,	Adulterated.
L1040	The American Linseed Oil Co., Cleveland, Ohio,	Sample Hardware Co., New Castle,	69	Raw,	Adulterated.
L902	The American Linseed Oil Co., Cleveland, Ohio,	John W. Slipp, Birdsboro,	2	Raw,	Adulterated.
L982	Archer-Daniels Linseed Co., Minneapolis, Minn.	Agnew Supply Co., Edinboro,	11	Raw,	Passed.
L921	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	Anderson Hardware Co., New Bethlehem,	1	Raw,	Passed.
L1125	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	H. B. & W. H. Bash, Avonmore.	154	Raw,	Passed.
L944	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	Hall, Kaul & Hyde Co., St. Marys,	24	Boiled,	Passed.
L1046	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	J. M. Huston, New Wilmington,	75	Raw,	Passed.
L924	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	Keystone Supply Co., Foxburg,	4	Boiled,	Passed.
L1023	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	Kitch & Mower, Sharpsville,	52	Raw,	Passed.
L1054	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	George W. Martsolf, New Brighton,	83	Raw,	Passed.
L1019	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	The Monarch Hardware Co., Sharon,	48	Raw,	Passed.
L1044	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	New Century Co., Edinburg,	73	Raw,	Passed.
L1053	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	H. M. Roberts. Beaver Falls,	82	Raw,	Passed.
L1078	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	Frank Seubert, Latrobe,	107	Raw,	Passed.
L917	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	G. W. Sheary, Lewistown,	17	Raw,	Passed.
L945	Armsrtong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	Smith Brothers Co., Ridgway,	25	Boiled,	Passed.
L1026	Armstrong-McKelvy Lead & Oil Co., Pittsburgh, Pa.,	E. C. Tribby, West Middlesex,	55	Raw,	Passed.
L1004	The Billings-Chapin Co., Cleveland, Ohio,	R. F. Hague, Conneautville,	33	Raw.	Passed.
L905	Danville Supply Co., Danville, Pa.,	M. H. Schram, Danville,	5	Raw,	Passed.
L964	Eagle Paint & Varnish Co., Pittsburgh, Pa.,	Butler Decorating Co., Butler,	44	Raw,	Passed.
L1171	Eagle Paint & Varnish Co., Pittsburgh, Pa.,	Frank Magidson, Brownsville,	200	Raw,	Passed.
L1133	The Eastland Linseed Oil Co., Cleveland, Ohio,	A. M. Metzgar, Hyde Park,	162	Raw,	Adulterated.
L1197	Felton, Sibley & Co., Philadelphia, Pa.,	Helps Brothers, Lansford,	226	Boiled,	Passed.
L1214	Felton, Sibley & Co., Philadelphia, Pa.,	J. Wilmer Lundy, Newtown,	243	Boiled,	Passed.
L1071	The Fredom Oil Works Co., Freedom, Pa.,	Cook & Sevin, Leetsdale,	100	Raw,	Passed.
L1064	The Freedom Oil Works Co., Freedom, Pa.,	Monaca Hardware Co., Monaca,	93	Raw,	Passed.
L1059	The Freedom Oil Works Co., Freedom, Pa.,	Rochester Hardware Co., Rochester,	88	Raw,	Passed.
L1212	Samuel H. French & Co., Philadelphia, Pa.,	Charles H. Shive, Doylestown,	241	Boiled,	Passed.
L1030	Garfield Paint Co., Cleveland, Ohio,	Farrell Furniture & Supply Co., Farrell,	59	Raw,	Adulterated.
L1076	W. J. Gilmore Drug Co., Pittsburgh, Pa.,	Ralph Anderson, Latrobe,	105	Raw,	Passed.
L1107	W. J. Gilmore Drug Co., Pittsburgh, Pa.,	G. A. Bitner. Youngwood,	136	Raw,	Passed.
L1148	W. J. Gilmore Drug Co., Pittsburgh, Pa.,	Fisher & Pocker, Irwin,	177	Raw,	Passed.
L1149	W. J. Gilmore Drug Co., Pittsburgh, Pa.,	Charles S. Haupt, Trafford,	178	Raw,	Passed.
L1080	W. J. Gilmore Drug Co., Pittsburgh, Pa.,	Livengood & Strickler, Latrobe,	109	Boiled,	Passed.
L994	The Globe Refining Co., Cleveland, Ohio,	Haynes House Pharmacy, North East,	23	Raw,	Adulterated.

RESULTS OF INSPECTION—Continued.

Chemist's number.	Name and Address of Manufacturer or Importer.	Name and Address of Dealer.	Agent's number.	Kind of oil.	Remarks.
L913	Globe Paint & Varnish Co., Pittsburgh, Pa.,	S. Wenner, Scottdale,	13	Raw,	Passed.
L1203	The Grove Linseed Oil Co., Philadelphia, Pa.,	H. E. Bradford, Walnutport,	232	Raw,	Passed.
L1202	The Grove Linseed Oil Co., Philadelphia, Pa.,	J. H. Browell. Palmerton,	231	Raw,	Passed.
L1209	The Grove Linseed Oil Co., Philadelphia, Pa.,	Walter Crawford, Nazareth,	238	Raw,	Passed.
L950	The Grove Linseed. Oil Co., Philadelphia, Pa.,	Henry Eddinger, Bally,	30	Raw,	Passed.
L908	The Grove Linseed Oil Co., Philadelphia, Pa.,	A. C. Ober, Palmyra,	8	Raw,	Passed.
L1195	The Grove Linseed Oil Co., Philadelphia, Pa.,	Seligman & Co., Tamaqua,	224	Boiled,	Passed.
L960	The Grove Linseed Oil Co., Philadelphia, Pa.,	Stump & Mueller. Marietta,	40	Raw,	Passed.
L995	The Hall Van Gorder Co., Cleveland, Ohio,	John J. Florey, North Girard,	24	Raw,	Passed.
L996	Hauenstein & Co., Buffalo, N. Y.,	Kuenzig Brothers, Girard,	25	Raw,	Passed.
L1084	T. C. Jenkins, Pittsburgh, Pa.,	Amer & Son, Youngstown,	113	Raw,	Passed.
L1058	T. C. Jenkins, Pittsburgh, Pa.,	Graham Brothers, Darlington.	87	Raw,	Passed.
L1113	George A. Kelley Co., Pittsburgh, Pa.,	Homer City Pharmacy, Homer City,	142	Raw,	Passed.
L1063	George A. Kelley Co., Pittsburgh, Pa.,	Penna. Ave., Pharmacy, Monaca,	92	Raw,	Passed.
L1170	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y.,	Bowers Hardware Co., Charleroi,	199	Raw,	Passed.
L937	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y.,	S. S. Bryan, Titusville,	17	Boiled,	Passed.
L1051	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y.,	J. F. Clayton, Beaver Falls,	80	Raw,	Passed.
L1020	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y.,	Fruit-Ohl Co.. Sharon,	49	Boiled,	Passed.
L1168	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y.,	Edward Greenhalgh, Blossburg,	197	Raw,	Passed.
L1187	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y.,	W. J. Kennedy & Son, Mars,	216	Raw,	Passed,
L1146	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y.,	George W. Lohr, Irwin,	175	Raw,	Passed.
L1182	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y.,	C. A. Ohl & Son, Zelienople,	211	Raw,	Passed.
L1106	Kellogg & McDougall Linseed Oil Works, Buffalo, N. Y..	C. E. Smith, Youngwood,	135	Raw,	Passed.
L1211	Kellogg & Miller. Armsterdam, N. Y.,	Zierden Store Co., Johnsonburg,	3	Pure Raw O. P.	Passed.
L1211	Kellogg & Miller. Armsterdam, N. Y.,	J. S. Krause Hardware Co., Bethlehem,	240	Pale Boiled,	Passed.
L975	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	S. L. Allen & Son, Cochranton,	4	Raw,	Passed.
L1002	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	A. F. Bail, Conneautville.	31	Raw,	Passed.*
L983	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	P. G. Baldwin, Union City,	12	Raw,	Passed.
L941	Spencer Kellogg & Sons. Inc., Buffalo, N. Y.,	The Barlow Hardware Co., Corry,	21	Boiled,	Passed.
L1164	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Barnes & Grabe, Coudersport,	193	Boiled,	Passed.
L1066	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Beaver Hardware Co., Beaver,	95	Raw,	Passed.
L976	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	W. P. Benner Hardware Co., Saegerstown,	5	Raw,	Passed.
L991	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	R. S. Carter, Harbor Creek,	20	Improved Boiled.	Passed.

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*Acid number high.

L1012	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Carter Brothers, Mercer,	41	Raw,	Passed.
L987	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Erie Window Glass Co., Erie,	16	Boiled,	Passed.
L1147	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	George W. Fink, Irwin,	176	Raw,	Passed.
L901	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Focht & Lacey, Birdsboro,	1	Raw,	Passed.
L972	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	P. B. Graham, Meadville,	1	Raw,	Passed.
L1000	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	C. Grate, Albion,	29	Raw,	Passed.
L906	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	George W. Hackett, Sunbury,	6	Boiled,	Passed.
L984	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	F. M. Hunter, Mill Village,	13	Raw,	Passed.
L1115	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Z. T. Kelly & Sons, Homer City,	144	Raw,	Passed.
L1173	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Kline & Co., Williamsport,	202	Boiled,	Passed.
L957	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Lancaster County, Farmers Assoc., Manheim,	37	Raw,	Passed.
L1096	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Loucks' Hardware Co., Scottdale,	125	Boiled,	Passed.
L1161	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Charles W. Masser, Smethport,	190	Boiled,	Passed.
L973	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	McLane, Schanck Hardware Co., Linesville,	2	Raw,	Passed.
L1005	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	J. C. McCreary, Jamestown,	34	Raw,	Passed.
L1048	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	C. Miles & Aley, Wampum,	77	Raw,	Passed.
L959	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	H. S. Newcomer, Mt. Joy,	39	Raw,	Passed,*
L1008	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Packard Hardware Co., Greenville,	37	Improved Boiled.	Passed.
L1017	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	George W. Palmiter, Stoneboro,	46	Raw,	Passed.*
L951	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	George W. Rahn, Boyertown,	31	Raw,	Passed.
L1018	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	W. A. Redmond Co., Grove City,	47	Raw,	Passed.
L1014	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Robins Hardware Co., Fredonia,	43	Raw,	Passed.
L1152	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	M. D. Salyards, Pitcairn,	181	Raw,	Passed.
L988	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	The Schaal Paint & Glass Co., Erie,	17	Boiled,	Passed.
L952	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	N. S. Schmehl, Kutztown,	32	Raw,	Passed.
L932	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Seep Brothers, Oil City,	12	Boiled,	Passed.
L909	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Samuel Shirk & Son, Hanover,	9	Raw,	Passed.
L1166	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Frank Simpson, Elkland,	195	Boiled,	Passed.
L1218	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Smith & Yocum, Norristown,	247	Raw,	Passed.
L943	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Stephens Hardware Co., Emporium,	23	Raw,	Passed.
L1208	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	E. J. Unangst, Nazareth,	237	Raw,	Passed.
L942	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	The Wales Hardware Co., Corry,	22	Raw,	Passed.
L1159	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Warren Hardware Co., Ltd., Warren,	188	Improved Boiled.	Passed. Passed.
L1013	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	J. J. Wasser, Fredonia,	42	Raw,	Passed.
L1191	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	W. W. Welliver, Danville,	220	Raw,	Passed.
L1177	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	E. C. Willets, Muncy,	206	Raw,	Passed.
L978	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.,	Williamson Brothers, Harmonsburg,	7	Raw,	Passed.
L1188	Spencer Kellogg & oSns, Inc., Buffalo, N. Y.,	Charles T. Wills & Co., Parnassus,	217	Raw,	Passed.
L1031	W. W. Lawrence, Pittsburgh, Pa.,	Charles C. Clark, Pulaski,	60	Raw,	Passed.
L1145	W. W. Lawrence, Pittsburgh, P.a,	L. C. Fox, Irwin,	174	Raw,	Passed.
L1139	W. W. Lawrence, Pittsburgh, Pa.,	F. E. Gant, Jeannette,	168	Raw,	Passed.
L922	W. W. Lawrence, Pittsburgh, Pa.,	J. P. Jones, Hardware Co., Summerville,	2	Raw,	Passed.
L1094	W. W. Lawrence, Pittsburgh, Pa.,	W. G. Osterwise, Mt. Pleasant,	123	Raw,	Passed.
L1070	W. W. Lawrence, Pittsburgh, Pa.,	Max. P. Schmidt, Leetsdale,	99	Raw,	Passed.
L1101	W. W. Lawrence, Pittsburgh, Pa.,	Harry Thomas, Greensburg,	130	Raw,	Passed.
L1219	John T. Lewis & Bros. Co., Philadelphia, Pa.,	Acker & Fry, Phoenixville,	248	Raw,	Passed.
L1220	John T. Lewis & Bros. Co., Philadelphia, Pa.,	The Benjamin Hardware Co., Phoenixville.	249	Boiled,	Passed.
L1196	John T. Lewis & Bros. Co., Philadelphia, Pa.,	J. M. Hadesty & Son, Tamaqua,	225	Raw,	Passed.
L1156	John T. Lewis & Bros. Co., Philadelphia, Pa.,	F. Hersh Hardware Co., Catasauqua,	185	Raw,	Passed.
L954	John T. Lewis & Bros. Co., Philadelphia, Pa.,	J. R. Hess, Gap,	34	Raw,	Passed.

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*Acid number high.

RESULTS OF INSPECTION—Continued.

Chemist's number.	Name and Address of Manufacturer or Importer.	Name and Address of Dealer.	Agent's number.	Kind of oil.	Remarks.
L962	John T. Lewis & Bros. Co., Philadelphia, Pa.,	Johnson & Gehman, Terre Hill,	42	Raw,	Passed.
L1205	John T. Lewis & Bros. Co., Philadelphia, Pa.,	J. M. Kiefer, Easton,	234	Raw,	Passed.
L970	John T. Lewis & Bros. Co., Philadelphia, Pa.,	K. H. McClintic, Mifflin,	50	Raw,	Passed.*
L961	John T. Lewis & Bros. Co., Philadelphia, Pa.,	Miller Hardware Co., Marietta,	41	Raw,	Passed.
L1210	John T. Lewis & Bros. Co., Philadelphia, Pa.,	Mitman & Ziegenfus, Bethlehem,	239	Raw,	Passed.
L1221	John T. Lewis & Bros. Co., Philadelphia, Pa.,	Mowrey, Latshaw Hardware Co., Spring City, Pa.,	250	Raw,	Passed.
L1206	John T. Lewis & Bros. Co., Philadelphia, Pa.,	A. J. Odenwelder, Easton,	235	Boiled,	Passed.
L1217	John T. Lewis & Bros. Co., Philadelphia, Pa.,	B. Quillman Hardware Co., Norristown,	246	Boiled,	Passed.
L1200	John T. Lewis & Bros. Co., Philadelphia, Pa.,	Sendel & Rouse, Lehighton,	229	Raw,	Passed.
L1199	John T. Lewis & Bros. Co., Philadelphia, Pa.,	Milton Snyder, Weissport,	228	Raw,	Passed.
L1215	John T. Lewis & Bros. Co., Philadelphia, Pa.,	H. C. Wortstall, Newtown,	244	Raw,	Passed.
L1216	John Lucas & Co., Philadelphia, Pa.,	J. Irwin Ambler, Lansdale,	245	Boiled,	Passed.
L1137	John Lucas & Co., Philadelphia, Pa.,	N. Hooker, Hardware Co., Natrona,	166	Raw,	Passed.
L914	The Guy G. Major Co., Toledo, Ohio,	C. A. Brilhart, Scottdale,	14	Raw,	Passed.†
L1163	The Mann Brothers Co., Buffalo, N. Y.,	Albee & Seltz Co., Galeton,	192	Boiled	Passed.
L940	The Mann Brothers Co., Buffalo, N. Y.,	Allen & Rexford, Spartansburg,	20	Raw,	Passed.
L1189	The Mann Brothers Co., Buffalo, N. Y.,	J. C. Baker, Tarentum,	218	Raw,	Passed.
L1162	The Mann Brothers Co., Buffalo, N. Y.,	George A. Bodine Co., Bradford,	191	Boiled,	Passed.
L955	The Mann Brothers Co., Buffalo, N. Y.,	Christiana Hardware & Supply Co., Christiana,	35	Raw,	Passed.
L946	The Mann Brothers Co., Buffalo, N. Y.,	H. B. Cooper & Son, Brockwayville,	26	Raw,	Passed.
L1157	The Mann Brothers Co., Buffalo, N. Y.,	Dettmer & Handwerk, Slatington,	186	Pure Raw,	Passed.
L963	The Mann Brothers Co., Buffalo, N. Y.,	Diller Hardware Co., New Holland,	43	Boiled,	Passed.
L969	The Mann Brothers Co., Buffalo, N. Y.,	W. B. Dysart, Bellwood,	49	Raw,	Passed.
L1165	The Mann Brothres Co., Buffalo, N. Y.,	Eimer Hardware Co., Roulette,	194	Raw,	Passed.
L980	The Mann Brothers Co., Buffalo, N. Y.,	H. A. Gerow, Venango,	9	Raw	Passed.
L1193	The Mann Brothers Co., Buffalo N. Y.,	J. W. Heberling, Est., Mauch Chunk,	222	Raw,	Passed.
L1062	The Mann Brothers Co., Buffalo, N. Y.,	Heckman Brothers, Monaca,	91	Raw,	Passed.
L985	The Mann Brothers Co., Buffalo, N. Y.,	M. Ernest Hewitt, Waterford,	14	Boiled,	Passed.
L979	The Mann Brothers Co., Buffalo, N. Y.,	Home Hardware & Plumbing Co., Cambridge Springs,	8	Raw,	Passed.
L1116	The Mann Brothers Co., Buffalo, N. Y.,	The Indiana Hardware Co., Indiana,	145	Raw,	Passed.
L1007	The Mann Brothers Co., Buffalo, N. Y.,	J. A. Kamerer & Co., Greenville,	36	Raw,	Passed.
L1117	The Mann Brothers Co., Buffalo, N. Y.,	Keller Brothers, Indiana,	146	Raw,	Passed.
L927	The Mann Brothers Co., Buffalo, N. Y.,	D. M. Long, Emlenton,	7	Raw,	Passed.

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*Acid number high. †Accidentally contaminated with formaldehyde.

L1181	The Mann Brothers Co., Buffalo, N. Y.,	I. V. Musser, Mifflinburg,	210	Raw,	Passed.
L967	The Mann Brothers Co., Buffalo, N. Y.,	Punxsutawney Hardware Co., Punxsutawney,	47	Boiled,	Passed.
L953	The Mann Brothers Co., Buffalo, N. Y.,	W. M. Rauhenholdt & Sons, Hamburg,	33	Raw,	Passed.
L948	The Mann Brothers Co., Buffalo, N. Y.,	Walter Richards, Brookville,	28	Raw,	Passed.
L935	The Mann Brothers Co., Buffalo, N. Y.,	H. T. Rose, Rouseville,	15	Pure Raw,	Passed.
L936	The Mann Brothers Co., Buffalo, N. Y.,	Rouseville Supply Co., Rouseville,	16	Boiled,	Passed.
L977	The Mann Brothers Co., Buffalo, N. Y.,	H. B. Saeger, Saegerstown,	6	Raw,	Passed.*
L998	The Mann Brothers Co., Buffalo, N. Y.,	L. H. Salisbury, Albion,	27	Raw,	Passed.
L1158	The Mann Brothers Co., Buffalo, N. Y.,	E. B. Schultz, Macungie,	187	Raw,	Passed.
L931	The Mann Brothers Co., Buffalo, N. Y.,	Schultz & Pardoe, Franklin,	11	Raw,	Passed.
L993	The Mann Brothers Co., Buffalo, N. Y.,	Selkregg Hardware Co., North East,	22	Boiled,	Passed.
L1179	The Mann Brothers Co., Buffalo, N. Y.,	C. L. Shipman, Hughesville,	208	Raw,	Passed.*
L1016	The Mann Brothers Co., Buffalo, N. Y.,	Stoneboro Hardware Co., Stoneboro,	45	Raw,	Passed.
L1167	The Mann Brothers Co., Buffalo, N. Y.,	G. L. Strait & Son, Mansfield,	196	Boiled,	Passed.
L1180	The Mann Brothers Co., Buffalo, N. Y.,	W. H. Straub, Milton,	209	Raw,	Passed.
L938	The Mann Brothers Co., Buffalo, N. Y.,	E. K. Thompson & Son, Titusville,	18	Pure Boiled,	Passed.
L997	The Mann Brothers Co., Buffalo, N. Y.,	E. H. Finklepaugh & Co., Girard,	26	Raw,	Passed.
L1009	The Mann Brothers Co., Buffalo, N. Y.,	Walker & Taft, Greenville,	38	Boiled,	Passed.
L1047	The Mann Brothers Co., Buffalo, N. Y.,	Wampum Hardware Co., Wampum,	76	Raw,	Passed.
L1175	The Mann Brothers Co., Buffalo, N. Y.,	Howard A. Weaver, Montoursville,	204	Raw,	Passed.
L923	The Mann Brothers Co., Buffalo, N. Y.,	J. F. Weaver Hardware Co., Clarion,	3	Raw,	Passed.
L1174	The Mann Brothers Co., Buffalo, N. Y.,	Webster Hardware Co., Newberry,	203	Raw,	Passed.
L992	The Mann Brothers Co., Buffalo, N. Y.,	Whitehill & Co., North East,	21	Raw,	Passed.
L1123	The Mann Brothers Co., Buffalo, N. Y.,	Chester R. Wilson, Avonmore,	152	Raw,	Passed.
L1178	The Mann Brothers Co., Buffalo, N. Y.,	William L. Wilson, Jersey Shore,	207	Raw,	Passed.
L904	The Mann Brothers Co., Buffalo, N. Y.,	Wynne Brothers, Canton,	4	Raw,	Passed.
L1052	The Mann Brothers Co., Buffalo, N. Y.,	R. E. Zimmerman, Beaver Falls,	81	Raw,	Passed.
L 981	The Metzgar Seed & Oil Co., Toledo, Ohio,	J. R. Armagost, Venango,	10	Raw,	Passed.
L990	The Metzgar Seed & Oil Co., Toledo, Ohio,	Erie Wall Paper & Painting Co., Erie,	19	Raw,	Passed.
L1001	The Metzgar Seed & Oil Co., Toledo, Ohio,	C. L. Head, Springboro,	30	Boiled,	Passed.
L1043	The Metzgar Seed & Oil Co., Toledo, Ohio,	D. W. Houck Co., Edinburg,	72	Raw,	Passed.
L1022	Midland Linseed Products Co., Minneapolis, Minn.,	Charles S. Flower, Sharon,	51	Raw,	Passed.
L1037	Midland Linseed Products Co., Minneapolis, Minn.,	New Castle Hardware Co., New Castle,	66	Raw,	Passed.
L1204	Midland Linseed Products Co., Minneapolis, Minn.,	C. L. Schlahach, Easton,	233	Raw,	Passed.
L919	Milwaukee Linseed Oil Works, Milwaukee, Wis.,	Miller's Hardware Store, Altoona,	19	Pure Raw,	Passed.
L1213	Daniel Minogue, Philadelphia, Pa.,	W. L. Randall, Doylestown,	242	Raw,	Adulterated
L1140	National Lead & Oil Co., Pittsburgh, Pa.,	Baughman Brothers, Jeannette,	169	Raw,	Passed.
L912	National Lead & Oil Co., Pittsburgh, Pa.,	Dufton Hardware Co., Clearfield,	12	Raw,	Passed.
L929	National Lead & Oil Co., Pittsburgh, Pa.,	Franklin Hardware Co., Franklin,	9	Raw,	Passed.
L1169	National Lead & Oil Co., Pittsburgh, Pa.,	Frye Hardware Co., Charleroi,	198	Raw,	Passed.
L916	National Lead & Oil Co., Pittsburgh, Pa.,	Gearhart & Helsel, Conemaugh,	16	Raw,	Passed.
L1090	National Lead & Oil Co., Pittsburgh, Pa.,	C. F. Goldsmith, Mt. Pleasant,	119	Raw,	Passed.*
L1093	National Lead & Oil Co., Pittsburgh, Pa.,	J. B. Goldsmith, Mt. Pleasant,	122	Raw,	Passed.
L1103	National Lead & Oil Co., Pittsburgh, Pa.,	Greensburg Hardware & Supply Co., Greensburg,	132	Raw,	Passed.
L971	National Lead & Oil Co., Pittsburgh, Pa.,	E. M. Guss & Sons, Mifflin,	51	Raw,	Passed.
L1074	National Lead & Oil Co., Pittsburgh, Pa.,	J. F. Howe Hardware & Supply Co., Freedom,	103	Raw,	Passed.
L1160	National Lead & Oil Co., Pittsburgh, Pa.,	Magowau's Pharmacy, Kane,	189	Raw,	Passed.
L1122	National Lead & Oil Co., Pittsburgh, Pa.,	G. W. Martin & Co., Saltsburg,	151	Raw,	Passed.
L1086	National Lead & Oil Co., Pittsburgh, Pa.,	A. B. Myers & Son, Ligonier,	115	Raw,	Passed.
L933	National Lead & Oil Co., Pittsburgh, Pa.,	Oil City Hardware Co., Oil City,	13	Boiled,	Passed.
L1077	National Lead & Oil Co., Pittsburgh, Pa.,	T. J. O'Brien Hardware Co., Latrobe,	106	Raw,	Passed.
L1119	National Lead & Oil Co., Pittsburgh, Pa.,	Peterson & Co., Indiana,	148	Raw,	Passed.
L1141	National Lead & Oil Co., Pittsburgh, Pa.,	Ringer & Foster, Jeannette,	170	Raw,	Passed.*

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*Acid number high.

RESULTS OF INSPECTION—Continued.

Chemist's number.	Name and Address of Manufacturer or Importer.	Name and Address of Dealer.	Agent's number.	Kind of oil.	Remarks.
L1038	National Lead & Oil Co., Pittsburgh. Pa.,	C. Ed. Smith Hardware Co.. New Castle,	67	Raw,	Passed.
L1034	National Lead & Oil Co., Pittsburgh, Pa.,	Smith, Hutton & Kirk Co., New Castle,	63	Boiled.	Passed.
L949	National Lead & Oil Co., Pittsburgh. Pa.,	Vanleer Brothers. Brookville,	29	Raw.	Passed.
L1102	Naitonal Lead & Oil Co., Pittsburgh, Pa.,	Westmoreland Supply Co., Greensburg,	131	Raw,	Passed.
L1028	National Lead & Oil Co., Pittsburgh, Pa..	A. Wishart & Sons Co., Farrell,	57	Raw,	Passed.
L1079	T. H. Nevin Co., Pittsburgh. Pa..	The Philip Doherty Hardware & Supply Co., Latrobe,..	108	Raw,	Passed.
L1003	Packard Hardware Co., Greenville. Pa.,	Wood & Truesdale. Conneautville,	32	Boiled,	Passed.
L968	Philipsburg Hardware Co., Philipsburg, Pa.,	Gordon Brothers. Coalport,	48	Raw,	Passed.
L925	Pittsburgh Paint & Supply Co., Pittsburgh. Pa..	Valentine Blatt, East Brady,	5	Raw.	Passed.
L1198	Pittsburgh Plate Glass Co., Pittsburgh, Pa.,	J. T. Bradburg, Nesquehoning,	227	Raw,	Passed.
L958	Pittsburgh Plate Glass Co.. Pittsburgh, Pa.,	George A. Fisher. Elizabethtown.	38	Raw,	Passed.
L1194	Pittsburgh Plate Glass Co.. Pittsburgh, Pa..	Geo. M. Genshart, East Mauch Chunk,	223	Boiled.	Passed.
L1143	The Sherwin-Williams Co., Cleveland, Ohio,	P. R. Brinker & Son, Manor,	179	Raw,	Passed.
L1114	The Sherwin-Williams Co., Cleveland. Ohio,	S. L. Byers, Homer City,	143	Raw,	Passed.
L934	The Sherwin-Williams Co., Cleveland, Ohio,	Chambers Hardware Co., South Oil City,	14	Raw,	Passed.
L1069	The Sherwin-Williams Co., Cleveland. Ohio,	City Hardware Co., Midland,	98	Raw,	Passed.
L1172	The Sherwin-Williams Co.. Cleveland, Ohio.	Craft Hardware Co., Uniontowu.	201	Raw.	Passed.
L1011	The Sherwin-Williams Co., Clevelaud, Ohio,	Crill & McCog. Mercer,	40	Kettle Boiled..	Passed.
L1130	The Sherwin-Williams Co., Cleveland, Ohio.	The Culp Co., Vandergrift.	159	Raw,	Passed.
L930	The Sherwin-Williams Co., Cleveland, Ohio,	The Dale & Reed Co.. Franklin,	10	Raw,	Passed.
L1095	The Sherwin-Williams Co., Cleveland. Ohio,	J. I. Dick Co.,. Scottdale.	124	Boiled,	Passed.
L928	The Sherwin-Williams Co., Cleveland. Ohio.	H. R. Gilmore, Emlenton,	8	Raw,	Passed.
L1021	The Sherwin-Williams Co., Cleveland, Ohio,	R. A. Hannah & Co., Sharon,	50	Raw.	Passed.
L1024	The Sherwin-Williams Co., Clevelaud, Ohio,	C. L. Hites. Sharpsville.	53	Raw,	Passed.
L1015	The Sherwin-Williams Co., Cleveland, Ohio,	Houser Brothers Co.. Stoneboro,	44	Raw.	Passed.
L1135	The Sherwin-Williams Co., Cleveland. Ohio.	Leechburg Hardware Co.. Leechburg,	164	Raw.	Passed.
L966	The Sherwin-Williams Co., Cleveland. Ohio,	M. G. Luker Co., Kittanning.	46	Raw,	Passed.
L939	The Sherwin-Williams Co., Cleveland, Ohio,	Harry C. Mapes, Pleasantville.	19	Boiled,	Passed.
L911	The Sherwin-Williams Co.. Cleveland, Ohio,	J. L. Maurer & Son, Philipsburg,	11	Raw,	Passed.
L1068	The Sherwin-Williams Co.. Cleveland, Ohio.	Midland Construction Co., Midland,	97	Raw,	Passed.
L1155	The Sherwin-Williams Co., Cleveland, Ohio,	Pitcairn Hardware & Plumbing Co., Pitcairn,	184	Raw,	Passed.
L1029	The Sherwin-Williams Co., Cleveland, Ohio,	Scowden Hardware Co., Farrell,	58	Boiled.	Passed.
L1165	The Sherwin-Williams Co., Cleveland, Ohio,	The Eli Sell Co., Greeusburg,	134	Raw.	Passed.
L1108	The Sherwin-Williams Co., Cleveland, Ohio.	E. W. Tomb & Co., Youngwood,	137	Raw,	Passed.
L1025	The Sherwin-Williams Co., Cleveland, Ohio,	T. A. Walker. West Middlesex,	54	Raw,	Passed.
L1144	Shipley-Massingham Co., Pittsburgh. Pa..	Homer V. Naley. Manor.	173	Raw,	Passed.
L1150	Shipley-Massingham Co.. Pittsburgh, Pa..	S. L. Weyandt, Trafford,	179	Raw,	Passed.

L1201	Smith, Kline & French Co., Philadelphia, Pa.,	Palm Drug Co., Palmerton,	230	Raw,	Passed.
L1190	Valentine H. Smith & Co., Philadelphia, Pa.,	Thomas Hetherington, Millersburg,	219	Raw,	Passed.*
L1192	Valentine H. Smith & Co., Philadelphia, Pa.,	Mauch Chunk Drug Store, Mauch Chunk,	221	Raw,	Passed.
L907	Southern States Turpentine Co., Cleveland Ohio,	H. D. Hoffman, Sunbury,	7	Raw,	Adulterated.
L1033	The Stambaugh-Thompson Co., Youngstown, Ohio,	W. S. Lowry, New Bedford,	62	Raw,	Passed.
L1176	Standard Linseed Co., Cleveland, Ohio,	George Decker, Montgomery,	205	Raw,	Passed.
L999	Standard Linseed Co., Cleveland, Ohio,	A. W. Sergeant, Albion,	28	Raw,	Adulterated.
L965	Standard Linseed Co., Cleveland, Ohio,	E. H. Wallace, Freeport,	45	Raw,	Adulterated.
L920	Standard Supply & Equipment Co., Altoona, Pa.,	John W. Eby, Altoona,	20	Pure, Raw,	Passed.
L1121	J. M. Stewart & Co., Indiana, Pa.,	Shupe Hardware Co., Saltsburg,	150	Raw,	Passed.
L1006	Strong, Cobb & Co., Cleveland, Ohio,	R. O. Stanford, Jamestown,	35	Raw,	Passed.
L1067	Thompson & Co., Pittsburgh, Pa.,	Anderson & Cook, Beaver,	96	Raw,	Passed.
L1083	Thompson & Co., Pittsburgh, Pa.,	J. W. Ballantyne, Derry,	112	Raw,	Passed.
L915	Thompson & Co., Pittsburgh, Pa.,	M. H. Bash, Conemaugh,	15	Raw,	Passed.
L989	Thompson & Co., Pittsburgh, Pa.,	Henry Beekman Son, Erie,	18	Boiled,	Passed.
L1087	Thompson & Co., Pittsburgh, Pa.,	Harvey Black, Ligonier,	116	Raw,	Passed.
L1100	Thompson & Co., Pittsburgh, Pa.,	D. W. Bortz, Greensburg,	129	Raw,	Passed.
L1128	Thompson & Co., Pittsburgh, Pa.,	George J. Bortz, Apollo,	157	Raw,	Passed.
L1049	Thompson & Co., Pittsburgh, Pa.,	Frank J. Brierly & Sons, Beaver Falls,	78	Raw,	Passed.
L1098	Thompson & Co., Pittsburgh, Pa.,	C. A. Brilhart, Scottdale,	127	Raw,	Passed.
L947	Thompson & Co., Pittsburgh, Pa.,	Brookville Hardware Co., Brookville,	27	Raw,	Passed.
L1183	Thompson & Co., Pittsburgh, Pa.,	The Burry Markel Co., Evans City,	212	Raw,	Passed.
L1186	Thompson & Co., Pittsburgh, Pa.,	Conaway Hardware Co., Sarver,	215	Raw,	Passed.
L1050	Thompson & Co., Pittsburgh, Pa.,	W. J. Davidson, Beaver Falls,	79	Boiled,	Passed.
L1081	Thompson & Co., Pittsburgh, Pa.,	Derry Hardware Co., Derry,	110	Raw,	Passed.
L1035	Thompson & Co., Pittsburgh, Pa.,	Dickson & Co., New Castle,	64	Raw,	Passed.
L1065	Thompson & Co., Pittsburgh, Pa.,	Donaldson Hardware Co., Beaver,	94	Raw,	Passed.
L1072	Thompson & Co., Pittsburgh, Pa.,	C. H. Droz, Ambridge,	101	Raw,	Passed.
L1097	Thompson & Co., Pittsburgh, Pa.,	Eicher & Craft, Scottdale,	126	Raw,	Passed.
L1088	Thompson & Co., Pittsburgh, Pa.,	A. F. Fowler & Son, Ligonier,	117	Raw,	Passed.‡
L1131	Thompson & Co., Pittsburgh, Pa.,	S. W. Hamilton & Son, Vandergrift,	160	Raw,	Passed.
L1041	Thompson & Co., Pittsburgh, Pa.,	Harbison, Yahn Hardware Co., Ellwood City,	70	Raw,	Passed.†
L974	Thompson & Co., Pittsburgh, Pa.,	Hendricks & Brooks, Linesville,	3	Raw,	Passed.
L1036	Thompson & Co., Pittsburgh, Pa.,	Horton & MacNab Co., New Castle,	65	Boiled,	Passed.
L1132	Thompson & Co., Pittsburgh, Pa.,	George A. Hunger, Vandergrift,	161	Raw,	Passed.
L1039	Thompson & Co., Pittsburgh, Pa.,	H. R. Huston, New Castle,	68	Raw,	Passed.
L1184	Thompson & Co., Pittsburgh, Pa.,	Imbrie Brothers, Petrolia,	213	Raw,	Passed.
L1185	Thompson & Co., Pittsburgh, Pa.,	Kraust & Freechling, Marwood,	214	Raw,	Passed.
L1073	Thompson & Co., Pittsburgh, Pa.,	Luce Hardware & Supply Co., Ambridge,	102	Raw,	Passed.
L1134	Thompson & Co., Pittsburgh, Pa.,	J. C. McGeary & Son, Leechburg,	163	Raw,	Passed.
L1092	Thompsno & Co., Pittsburgh, Pa.,	Miller Roofing Co., Mt. Pleasant,	121	Raw,	Passed.
L1120	Thompson & Co., Pittsburgh, Pa.,	J. C. Moore Supply Co., Saltsburg,	149	Raw,	Passed.
L1082	Thompson & Co., Pittsburgh, Pa.,	George Mowry & Bro., Derry,	111	Raw,	Passed.
L1109	Thompson & Co., Pittsburgh, Pa.,	George J. New, Blairsville,	138	Raw,	Passed.
L1061	Thompson & Co., Pittsburgh, Pa.,	Newkirk Hardware Co., Rochester,	90	Raw,	Passed.
L1091	Thompson & Co., Pittsburgh, Pa.,	T. C. & C. V. Patterson, Mt. Pleasant,	120	Raw,	Passed.
L1110	Tohmpson & Co., Pittsburgh, Pa.,	L. S. W. Ray, Blairsville,	139	Raw,	Passed.
L1056	Thompson & Co., Pittsburgh, Pa.,	Reid & Schueler, New Galilee,	85	Raw,	Passed.
L926	Thompson & Co., Pittsburgh, Pa.,	George L. Reiger, East Brady,	6	Raw,	Passed.
L1060	Thompson & Co., Pittsburgh, Pa.,	W. F. Schmidt, Rochester,	89	Raw,	Passed.
L1042	Thompson & Co., Pittsburgh, Pa.,	Slocum Hardware Co., Ellwood City,	71	Raw,	Passed.
L1075	Thompson & Co., Pittsburgh, Pa.,	R. D. Synder, Freedom,	104	Raw,	Passed.

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*Acid number high.

‡Accidentally contaminated with turpentine.

†Accidentally contaminated with mineral oil.

RESULTS OF INSPECTION—Concluded.

Chemist's number.	Name and Address of Manufacturer or Importer.	Name and Address of Dealer.	Agent's number.	Kind of oil.	Remarks.
L1127	Thompson & Co., Pittsburgh, Pa.,	H. S. Steele, Apollo,	156	Raw,	Passed.
L1118	Thompson & Co., Pittsburgh. Pa.,	J M. Stewart & Co., Indiana,	147	Raw.	Passed.
L1055	Thompson & Co., Pittsburgh, Pa.,	Stuckys Red Cross Pharmacy, New Brighton.	84	Raw,	Passed.
L1136	Thompson & Co., Pittsburgh, Pa.,	Stull-Hill-Coulter Co., Inc., Leechburg,	165	Raw,	Passed.
L1124	Thompson & Co., Pittsburgh, Pa.,	T. P. Sturgeon, Avonmore,	153	Raw,	Passed.
L1085	Thompson & Co., Pittsburgh, Pa.,	J. M. Sulky, Youngstown,	114	Raw,	Passed.
L1099	Thompson & Co., Pittsburgh, Pa.,	Temple & Sons, Greensburg,	128	Raw,	Passed.
L1129	Thompson & Co., Pittsburgh, Pa.,	C. H. Truby. Apollo,	158	Raw,	Passed.
L1089	Thompson & Co., Pittsburgh, Pa.,	R. A. Wilt. Ligonier,	118	Raw,	Passed.
L1126	Thompson & Co., Pittsburgh, Pa.,	Frank T. Wray, Apollo,	155	Boiled.	Passed.
L1045	Thompson & Co., Pittsburgh, Pa.,	J. Wright & Son. New Wilmington.	74	Raw,	Passed.
L1138	The Toledo Seed & Oil Co., Toledo, Ohio,	W. P. Easley. Natrona,	167	Raw,	Passed.
L1032	The Warren Paint Co., Warren, Ohio,	Horace G. McGown. New Bedford,	61	Raw,	Passed.
L1027	The Warren Paint Co.. Warren. Ohio,	C. G. Welker. Wheatland,	56	Raw,	Passed.*
L1151	Watson Paint & Glass Co., McKeesport, Pa.,	Frank Lesher-Weston Co., Trafford,	180	Raw,	Passed.
L1154	Watson Paint & Glass Co., McKeesport, Pa.,	J. R. McDowell, Pitcairn,	138	Raw,	Passed.
L1010	A. L. Webb & Sons, Baltimore, Md.,	Harry H. Craig. Mercer.	39	Raw,	Passed.
L956	The A. Wilhelm Co., Reading, Pa.,	H. H. Martin. Manheim,	36	Raw,	Passed.
L1207	Unknown.	H. H. Bennett, Easton,	236	Raw,	Passed.
L1142	Unknown,	John Fellows. Jeannette,	171	Raw,	Passed.
L983	Unknown,	Hayes Wall Paper Co., Erie,	15	Raw,	Passed.†
L1153	Unknown,	McIndoe Wall Paper Co.. Pitcairn,	182	Raw,	Passed.
L918	Unknown,	J. C. Prettyleaf, Lewistown,	18	Raw,	Passed.
L910	Unknown,	W. A. Shaffer, York,	10	Boiled,	Passed.
L1111	Unknown,	S. D. Stiffey & Sons, Blairsville,	140	Raw,	Passed.*
L1104	Unknown,	Van Dyke Brothers. Greensburg,	133	Raw,	Passed.
L1112	Unknown,	J. H. Vorlage & Bro., Blairsville,	141	Raw,	Passed.‡

*Acid number high. †Accidentally contaminated with turpentine. ‡Contained turpentine, mixed for painting and sampled by mistake.